



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/987,100

11/13/2001

Jin Il Kim

K-0337

6532

34610

7590

01/14/2005

FLESHNER & KIM, LLP

P.O. BOX 221200

CHANTILLY, VA 20153

EXAMINER

PEACHES, RANDY

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/987,100

Applicant(s)

KIM ET AL.

Examiner

Randy Peaches

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/10/2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. ***Claims 1, 3, 6, 8-9, 19 and 22*** are rejected under 35 U.S.C. 102(e) as being anticipated by Kim (U.S. Patent Number 6,597,918 B1).

Regarding ***claims 1, 6 and 19***, Kim discloses short message transmitting method in a communication system comprising the steps of:

- checking the number of characters of an input text message. See column 3 lines 52-57;
- inserting connection SMS header which includes a separate long message ID, which reads on claimed "message information representing a boundary" indicating that the transmitted message is a part of a given long of the text message and identification information for informing that the text message is divided whenever the checked number, in step number (212), of characters exceeds a predetermined number. See column 3 line 52;

Art Unit: 2686

- dividing the input text message according to the inserted connection information.

See column 3 lines 57-61; and

- In step (222), transmitting divided text messages. See column 4 lines 2-4.
- wherein for a first divided text message among the divided text messages, the said connection SMS header is inserted into only an end portion of the first divided text message. As defined by the ***American Heritage College Dictionary***, the word “end” is defined as – either extremity of something that has length;

Regarding ***claim 3***, according to ***claim 1***, Kim discloses wherein at the identification information insertion step, step (218), the long message ID and the sequence number information indicating the sequence order of the segmented message. See columns 3 and 4 lines 61-67 lines 1-6.

Regarding ***claim 8***, according to ***claim 1***, Kim discloses in columns 3 and 4 lines 52-67 lines 1-6, wherein the transmitting the divided text message further includes the steps of:

- checking the divided order of the respective divided text messages; and
- successively transmitting the respective divided text messages according to the checked divided order.

Art Unit: 2686

Regarding **claim 9**, according to **claim 8**, Kim discloses in column 4 lines 44-50, wherein the said sequence identification information on the division order of the respective short messages, which reads on claimed "divided text", is obtained by checking the inserted said sequence identification information.

Regarding **claim 22**, according to **claim 19**, Kim discloses wherein inserting the said end code at the end of the divided message. See column 4 lines 2-4.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 2, 4, 7, 11-15, 17-18 and 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Patent Number 6,597,918 B1) in view of Quick, Jr. (U.S. Patent Number 5,673,259).

Regarding **claims 2, 17-18 and 20-21**, according to **claims 1, 13 and 19**, Kim discloses short message transmitting method in a communication system comprising the steps of:

- checking the number of characters of an input text message. See column 3 lines 52-57;

Art Unit: 2686

- inserting connection SMS header which includes a separate long message ID, which reads on claimed "message information representing a boundary" indicating that the transmitted message is a part of a given long of the text message and identification information for informing that the text message is divided whenever the checked number, in step number (212), of characters exceeds a predetermined number. See column 3 line 52;
- dividing the input text message according to the inserted connection information. See column 3 lines 57-61; and
- In step (222), transmitting divided text messages. See column 4 lines 2-4.

However, Kim does not disclose wherein at the connection information insertion step, the connection information comprises first connection information for informing that there is the divided text message connected in rear of the connection information, and second connection information for informing there is the divided text message connected in front of the connection information.

Quick, Jr. teaches in FIGURE 8 and column 14 lines 48-67, that at the beginning of a message is a flag octet (802), which reads on claimed "first connection information", informing that data is following the designated flag, which reads on claimed "divided text message connected in rear of the connection information". A second octet flag (810) is inserted at the end to inform that data is placed in between each of the respected flags.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Kim (U.S. Patent Number 6,597,918

Art Unit: 2686

B1) to include Quick, Jr. (U.S. Patent Number 5,673,259) in order to provide an identifier at the beginning and the end of a segmented message string to inform a receiver of the information contained between the said identifiers.

Regarding **claim 4**, as the combination of Kim (U.S. Patent Number 6,597,918 B1) and Quick, Jr. (U.S. Patent Number 5,673,259) are made, the combination according to **claim 2**, further teaches as Quick, Jr. details in FIGURE 8 and column 14 lines 48-67 where the beginning of a message is a flag octet (802), which reads on claimed "first connection information", informing that data is following the designated flag, which reads on claimed "divided text message connected in rear of the connection information". A second octet flag (810) is inserted at the end to inform that data is placed in between each of the respected flags.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Kim (U.S. Patent Number 6,597,918 B1) to include Quick, Jr. (U.S. Patent Number 5,673,259) in order to provide an identifier at the beginning and the end of a segmented message string to inform a receiver of the information contained between the said identifiers.

Regarding **claims 7 and 15**, as the combination of Kim (U.S. Patent Number 6,597,918 B1) and Quick, Jr. (U.S. Patent Number 5,673,259) are made, the combination according to **claims 1 and 13**, further teaches as Quick, Jr. details in column 27 lines

Art Unit: 2686

53-60 wherein the sub-channels, which reads on claimed "divided text messages", are transmitted through a paging channel.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Kim (U.S. Patent Number 6,597,918 B1) to include Quick, Jr. (U.S. Patent Number 5,673,259) in order to provide an identifier at the beginning and the end of a segmented message string to inform a receiver of the information contained between the said identifiers.

Regarding **claim 11**, Kim discloses a short message receiving method in a communication system comprising the steps of:

- receiving text messaged transmitted through a radio channel; checking whether the received text messaged are text messages divided and transmitted by a transmitting end by analyzing identification information for example, header, long message ID and message sequence number, of the received text messages. See column 4 lines 10-35 and claim 11.
- if it is checked that the received text messages are the divided text messages, storing the received text messages in a memory. See column 4 lines 23-28; and
- displaying the text messages stored in the memory. See columns 2 and 4 lines 2-4 lines 64-65, respectively.

However, Kim does not disclose wherein at the connection information insertion step, the connection information comprises first connection information for informing that there is the divided text message connected in rear of the connection information,



Art Unit: 2686

and second connection information for informing there is the divided text message connected in front of the connection information.

Quick, Jr. teaches in FIGURE 8 and column 14 lines 48-67, that at the beginning of a message is a flag octet (802), which reads on claimed "first connection information", informing that data is following the designated flag, which reads on claimed "divided text message connected in rear of the connection information". A second octet flag (810) is inserted at the end to inform that data is placed in between each of the respected flags.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Kim (U.S. Patent Number 6,597,918 B1) to include Quick, Jr. (U.S. Patent Number 5,673,259) in order to provide an identifier at the beginning and the end of a segmented message string to inform a receiver of the information contained between the said identifiers.

Regarding **claim 12**, as the combination of Kim (U.S. Patent Number 6,597,918 B1) and Quick, Jr. (U.S. Patent Number 5,673,259) are made, the combination according to **claim 11**, further teaches, Kim discloses wherein at the display step, the identification information of the respective stored text messages is checked, and the respective stored text messages are successively displayed according to sequence identification number, which reads on claimed "division order information", of the respective stored text messages that is included in the identification information. See columns 2 and 4 lines 2-4 lines 12-17, respectively.

Regarding **claim 13**, Kim discloses a short message transmitting/receiving method in a communication system comprising the steps of:

- a transmitting end producing a message to be transmitted. See columns 1 and 2 lines 53-67 lines 1-17;
- in case that the message to be transmitted exceeds a predetermined length, a receiving end inserting for a predetermined unit of the message connection information representing a boundary of the unit and identification information representing that the message is divided and transmitted. See columns 3 and 4 lines 52-67 lines 29-31;
- segmenting the message according to the inserted connection and identification information. See column 3 lines 52-67;
- numbering and transmitting to the transmitting end the divided unit messages. See column 4 lines 1-6; and
- the receiving end assembling the transmitted unit messages into a message according to the connection and identification information of the unit messages and displaying the assembled message. See column 4 lines 1-6.

However, Kim does not disclose wherein at the connection information insertion step, the connection information comprises first connection information for informing that there is the divided text message connected in rear of the connection information, and second connection information for informing there is the divided text message connected in front of the connection information.

Quick, Jr. teaches in FIGURE 8 and column 14 lines 48-67, that at the beginning of a message is a flag octet (802), which reads on claimed "first connection information", informing that data is following the designated flag, which reads on claimed "divided text message connected in rear of the connection information". A second octet flag (810) is inserted at the end to inform that data is placed in between each of the respected flags.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Kim (U.S. Patent Number 6,597,918 B1) to include Quick, Jr. (U.S. Patent Number 5,673,259) in order to provide an identifier at the beginning and the end of a segmented message string to inform a receiver of the information contained between the said identifiers.

Regarding **claim 14**, as the combination of Kim (U.S. Patent Number 6,597,918 B1) and Quick, Jr. (U.S. Patent Number 5,673,259) are made, the combination according to **claim 13**, further teaches, wherein Kim further discloses a message assembly comprising the steps of:

- temporarily storing the transmitted unit messages. See column 4 lines 44-57.
- assembling the unit messages according to a numbering order of the stored unit messages and the connection information. See column 4 lines 44-57; and
- displaying the assembled message. See columns 2 and 4 lines 2-4 lines 64-65, respectively.

3. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Patent Number 6,597,918 B1) in view of Halvorson (U.S. Patent Number 6,208,859 B1).

Regarding claim 10, according to claim 1, Kim discloses short message transmitting method in a communication system comprising the steps of:

- checking the number of characters of an input text message. See column 3 lines 52-57; .
- inserting connection SMS header which includes a separate long message ID, which reads on claimed "message information representing a boundary" indicating that the transmitted message is a part of a given long of the text message and identification information for informing that the text message is divided whenever the checked number, in step number (212), of characters exceeds a predetermined number. See column 3 line 52;
- dividing the input text message according to the inserted connection information. See column 3 lines 57-61; and
- In step (222), transmitting divided text messages. See column 4 lines 2-4.

However, Kim does not disclose wherein checking whether the respective divided

- text messages are normally transmitted; and if it is checked that there is any text message not normally transmitted, re-transmitting the corresponding text message.

Halvorson teaches, wherein steps further comprising:

- after the transmission the, determining, which reads on claimed "checking", whether the respective divided text messages are normally transmitted. See column 26 lines 9-17.
- if it is determined that there are any text messages not normally transmitted, re-transmitting the corresponding text message. See column 26 lines 9-17.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teachings of Kim (U.S. Patent Number 6,597,918 B1) to include Halvorson (U.S. Patent Number 6,208,859 B1) in order to provide a checksum step to determined if the transmitted divided text has been transmitted successfully and if it is not determined that it has not be transmitted successfully re-transmit the divided text, accordingly.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Peaches whose telephone number is (703) 305-8993. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Randy Peaches  
January 9, 2005

*Marsha D Banks-Harold*  
MARSHA D. BANKS-HAROLD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600